

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: \_\_\_\_\_ Examiner #: \_\_\_\_\_ Date: \_\_\_\_\_  
Art Unit: \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: \_\_\_\_\_  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

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## STAFF USE ONLY

Searcher: \_\_\_\_\_

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: 7/3/01

Date Completed: 7/5/01

Searcher Prep & Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

## Type of Search

NA Sequence (#) 1

AA Sequence (#) \_\_\_\_\_

Structure (#) \_\_\_\_\_

Bibliographic \_\_\_\_\_

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendors and cost where applicable

STN \_\_\_\_\_

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Dr.Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems EV

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

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GenCore version 4.5  
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OM nucleic - nucleic search, using sw model

Run on: July 4, 2001, 22:35:12 ; Search time 5349.06 Seconds  
(without alignments)  
9886.636 Million cell updates/sec

Title: US-09-117-447-1

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Gapop 10.0 , Gapext 1.0

Searched: 13641696 seqs, 7171712690 residues

Total number of hits satisfying chosen parameters: 27283392

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Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a  
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and is derived by analysis of the total score distribution.

## SUMMARIES

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7	62.6	1.7	3579	1 PCT-US99-26796-232	Sequence 232, App
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ALIGNMENTS

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: APPLICANT: LUBITZ, Werner
: APPLICANT: SLEYTR, Uwe
: APPLICANT: KUEN, Beatrix
: APPLICANT: TRUPPE, Michaela
: APPLICANT: HOMORKA, Stefan
: APPLICANT: RESCH, Stepanka
: APPLICANT: SCHROLL, Gerhard
: APPLICANT: SARA, Margit
: TITLE OF INVENTION: RECOMBINANT EXPRESSION OF S-LAYER PROTEINS
: FILE REFERENCE: 100564-08013
: CURRENT APPLICATION NUMBER: US/09/117,447
: CURRENT FILING DATE: 1998-12-02
: PRIOR APPLICATION NUMBER: PCT/EP97/00432
: PRIOR FILING DATE: 1997-01-31
: PRIOR APPLICATION NUMBER: DE/196 03 649.6
: PRIOR FILING DATE: 1996-02-01
: NUMBER OF SEQ ID NOS: 10
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; Sequence 1, Application US/09463402
; GENERAL INFORMATION:
; APPLICANT: Lubitz, Werner
; APPLICANT: Resch, Stephanie
; TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm
; TITLE OF INVENTION: and into the Extracellular Space
; FILE REFERENCE: 05649059
; CURRENT APPLICATION NUMBER: US/09/463,402
; CURRENT FILING DATE: 2000-01-31
; PRIOR APPLICATION NUMBER: DE19732829.6
; PRIOR FILING DATE: 1997-07-30
; PRIOR APPLICATION NUMBER: PCT/EP98/04723
; PRIOR FILING DATE: 1998-07-27
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: Patentln Ver. 2.1
; SEQ ID NO 1
; LENGTH: 3687
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; ORGANISM: Bacillus stearothermophilus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(3684)
; NAME/KEY: sig_peptide
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RESULT 3  
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; Sequence 12, Application US/09463402  
; GENERAL INFORMATION:  
; APPLICANT: Lubitz, Werner  
; APPLICANT: Resch, Stephanie  
; TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm





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Db 3139 gaaaataaaacatacaaaaattgtatbccaacaaggtgtaaacacttgcagagtttactcaa 3198  
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RESULT 4  
US-09-463-402-11  
; Sequence 11, Application US/09463402  
; GENERAL INFORMATION:  
; APPLICANT: Lubitz, Werner  
; APPLICANT: Resch, Stephanie  
; TITLE OF INVENTION: Secretion of Carrier-bound Proteins into the Periplasm  
; FILE REFERENCE: 05649059  
; CURRENT APPLICATION NUMBER: US/09/463,402  
; CURRENT FILING DATE: 2000-01-31  
; PRIOR APPLICATION NUMBER: DE19732829.6  
; PRIOR FILING DATE: 1997-07-30  
; PRIOR APPLICATION NUMBER: PCT/EP98/04723  
; PRIOR FILING DATE: 1998-07-27  
; NUMBER OF SEQ ID NOS: 13  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 11  
; LENGTH: 4988  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:

OTHER INFORMATION: Description of Artificial Sequence: fusion of SbsA  
; OTHER INFORMATION: and MAIE  
US-09-463-402-11

Query Match 97.6%; Score 3598.2; DB 18; Length 4988;  
Best Local Similarity 99.9%; Pred. No. 0;  
Matches 3600; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

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QY	145	tactatacttaacgcatcacagtaacggaactgtgaattcccaaacattaacgattgta	204
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QY	325	gtttccaagaacaaaccctaataatctgacgaagctcgtgtagcaacttaacatcgatgcttac	384
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RESULT 5  
US-60-226-176-1986  
; Sequence 1986, Application US/60226176  
; GENERAL INFORMATION:  
; APPLICANT: Ring, Huijun Z.  
; APPLICANT: Malsen, Gareth  
; APPLICANT: Townley, David  
; APPLICANT: Morris, MacDonald  
; TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated With ADME Genes  
; FILE REFERENCE: GX-0013-1 P  
; CURRENT APPLICATION NUMBER: US/60/226.176  
; CURRENT FILING DATE: 2000-08-16  
; NUMBER OF SEQ ID NOS: 2447  
; SOFTWARE: PERL Program  
; SEQ ID NO 1986  
; LENGTH: 7814  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; FEATURE:  
; NAME/KEY: misc feature  
; OTHER INFORMATION: GRI:AC024253\_3\_000004  
US-60-226-176-1986

Query Match 1.9%; Score 71.4; DB 54; Length 7814;  
Best Local Similarity 41.4%; Pred. No. 3e-05;  
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 Db 4057 tgctgctactattactgctgtgctattgtgctgctgctactgctgctgtgtgtgtgctgctactgt 4116  
 OY 2739 tgatacaactaagaagcttattagttgtaattcaatgaaactgatttagcggaagttaaac 2798  
 Db 4117 tgttgctactatgtaagatgtgctgctgctgctgctgtgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4176  
 OY 2799 tgagaacatcggtgttaaaagatgcagcaggtaatgcygtagctggtactgtaacagcaat 2858  
 Db 4177 tgctactctgtgtgct-----gctgctgctgttattgtgcgcgacttctgttgtgtactgc 4233  
 OY 2859 agacggttctacaataaattgttatctcaactccatctcaagaattlaaaagctggtacagt 2918  
 Db 4234 tgattttgctatttctctggtgctattgttgtgctgcgtgtgtgtgtgtgtgtgtgtgtgtgtgt 4293  
 OY 2919 ttactctgttaacaattgacgcgtgtgtgagagataaagtagttaaacaacaatctcttaatacat 2978  
 Db 4294 tgatttctgttgcctattgttgtgtgctataatgtcctaaattgttgtctgctgtgtgtgtgctattgt 4353  
 OY 2979 tacttcgttcaagactgctatctgcgaatcccaacggtatcttcaatcagcatgctgtgacgg 3038  
 Db 4354 tggttttgttgttaactgcttctctgt 4413  
 OY 3039 tgcaggttaacggtgacgcgttcttaaaacaatlaacatt 3075  
 Db 4414 tgcctgctgctgatactgctgttactactgttactaatgtgcatt 4450

```

RESULT      6
US-60-233-468-1986
; Sequence 1986, Application US/60233468
; GENERAL INFORMATION:
; APPLICANT:      Ring, Huijun Z.
; APPLICANT:      Malsen, Gareth
; APPLICANT:      Townley, David
; APPLICANT:      Morris, MacDonald
; APPLICANT:      Valdes, Ana
; TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated With ADME Genes
; FILE REFERENCE:  GX-0013-2 P
; CURRENT APPLICATION NUMBER: US/60/233,468
; CURRENT FILING DATE:    2000-09-18
; NUMBER OF SEQ ID NOS:    2488
; SOFTWARE:      PERL Program
; SEQ ID NO 1986
; LENGTH: 7814
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: GBI:AC024253_3_000004
US-60-233-468-1986

```

	Query Match	1.9%;	Score 71.4;	DB 55;	Length 7814;
	Best Local Similarity	41.4%;	Pred. No. 3e-05;		
	Matches 735; Conservative	0;	Mismatches 1018;	Indels 24;	Gaps 3;
QY	1299 tccagtaattgcatactactctgtgtttacaatttactatlaacgtttaaaagaagcgttagt	1358			
Db	2698 taactgttatctaactgcgaatttcggttgctactgctgctgttgctgctgtgctattgt	2757			
QY	1359 aaactgtaaacaatatataacttgcatacaataatgtttaaacacattaactcggttacaatgc	1418			



Db 2758 tgcgtgtgtaattgtagatgcatatgtcgtgtgctgatatgtcttctgtgtctatctgctgtgc 2817  
QY 1419 agaagcttacgagtagtgttctactgcaaacgcatacagcaccactgtgtctaccgctcc 1478  
Db 2818 tgttgcgtgatactgtgtcctatcgcttcttctgtatattgttgcgtgtgtgtgtgtgtgc 2877  
QY 1479 tactactttaagtggtgtacaacttatactactgtgtctctcttacaacaacatgtttgggttaa 1538  
Db 2878 tactgttgcgtgtgtgtcgtcgtccttattgttgcgtcgtcgtgtgtgtgtgtgtgc 2937  
QY 1539 atggtcgtgtgtgtgtgaatggaagctggaacttatacctgtgtccttcaaltcacacaac 1598  
Db 2938 tgttgcgtgttcttaactcgtcgtcattgtgtgcgatgcgtcgtcgtgtgtgtgtgtgtgc 2997  
QY 1599 gtttgcactaagttagaagcaactctacttaagctgataaacttgttattagttgaaaaaga 1658  
Db 2998 tgttgcgtgataactgtgtcctatcgcttctgttattgtgtgtgtgtgtgtgtgtgtgc 3057  
QY 1659 atctgtgacagttgtgtcttctgaaactaaataatgcaagcgtaaatgttaactt 1718  
Db 3058 tactgtgtgtgtgtgtcgtcgtccttattgtgtcgtcgtcgtgtgtgtgtgtgtgtgc 3117  
QY 1719 agtgcacaagcggacccttaagaaatatacattcatcaatcaaatlaaaaaagcctt 1778  
Db 3118 tgcatttgtgtcctctgttctgtgtcgtgatgctgctactgttgcattgtcgtgtgtgc 3177  
QY 1779 gaagtcggaataaaggattatgnaatagcgcactgtttaacgagaaacatatagagttcaaac 1838  
Db 3178 tactactgttgcattatgtcgtcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgtgtgtgc 3237  
QY 1839 tcaagacttaactgtcctctacagttatagcgttaacgltcaaaaatgycgcagctgtgalt 1898  
Db 3238 tatggtlaattatgtcgtcgtcgtcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgtgtgc 3297  
QY 1899 aaaagtaactgaagcctcaagaatttactgtgaagttctcagagaatttaaatatattaa 1958  
Db 3298 tgcgtgtgcgtgtgttaattgtgatgctatgtgtgtgtgtgtgtgtgtgtgtgtgtgc 3357  
QY 1959 tgcatacaaccgttccggtgtagcaacaatcacalacggtcaagttgtgtgtagtaaaagcg 2018  
Db 3358 tgtgtcgtgtgtgatactgtgtcattgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgc 3417  
QY 2019 tgcacaacttactgtcctctacagcaagtgacatcatccagctagtgtgaagcggttac 2078  
Db 3418 tgcgtcctactgc 3477  
QY 2079 tggtcacaagatggaacatatacaaaagtgaagttgtcgtcgtcaaccaattagaacgtaac 2138  
Db 3478 tgcgtcgtgtgtgtgttcttactcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgtgtgc 3537  
QY 2139 gtacaaatagtagtgtgtcgtgaagtgcaacagctcctgtttaaagatgctgcaaatgc 2198  
Db 3538 tgcgtatactgtgtcatalcgtgtcttctgttaattgtgtgtgtgtgtgtgtgtgtgtgc 3597  
QY 2199 aaatactttagcaactaactataatctatacatattacaactgaaggtcaagcgtaacagc 2258  
Db 3598 tgttgc 3657  
QY 2259 acccaacggttacaaaagtattcaaaagtgtattctttaaagacgctgtgagttacttac 2318  
Db 3658 tgcctactgtgtcattatgtcgt--tgcgtcctactattactgtgtgtcattgtcctactat 3714  
QY 2319 acttacgaacggttgatgtcaggtcaaaaatccactatcccaatttagcgaagaaltlaaaac 2378  
Db 3715 tgcgtcgtgc 3774  
QY 2379 ttctagtgttctttagtgggtgcaaaagtaactgtcgagaatlaaacaacaacgagatg 2438  
Db 3775 tgcctactgttataactgcgatttctgttgcactcgtcgtgtgtgtgtgtgtgtgtgc 3834  
QY 2439 ggtagatgtcgtgtactggaacaactgtatcagttgtctcctaagaacagatgcaaatgttaa 2498  
Db 3835 tgatgcgtgcgtgttaactcgtgataactattgtgtgtgtgtgtgtgtgtgtgtgtgtgc 3894

QY 2499 agtaacagctgctgtgtgttatacattaaactgtgtcttgacaataaacgacaagaatcgaaatt 2558  
Db 3895 gncgtcactgtgnciatattgtgtccttctgttaattgtgtcctctgtgtgtgtgtgtgc 3954  
QY 2559 gcgtcgtgtagtaagaagcttcttactcgtatgtaattgtcgtgtgtgtgtgtgtgtgt 2618  
Db 3955 tgatcgtgtgtgcctattattgtgtcgtcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgtgc 4014  
QY 2619 taaggaanaagatatatttaattcgtttacacacagcctggagacacactgttagctctgtgaa 2678  
Db 4015 tgcgttattgtgtgtgtgtgtgc-----actgtgtcattgtgtgc 4056  
QY 2679 agctgtcgtgacaagaatggtcacaacgcttctgtcgtcattcccaacgaagcactgcaat 2738  
Db 4057 tgcgtcctactaattactgtgtgtcattgtcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgc 4116  
QY 2739 tgatacaactaagagcttattagttgnaatlcgaatgaaactgtatttagcggaaagttaaac 2798  
Db 4117 tgttgcctactatgtaaatgattgtcgtcgtcgtcgtcgtcgtcgtgtgtgtgtgtgtgtgc 4176  
QY 2799 tgagaacatcgtgtgttaagaatgcaagcaggtlaatgcgtgtgtgtgtgtgtgtgtgtgc 2858  
Db 4177 tgcactctcgtgtgc---gctgcgtgtgtattgtgtgcgaactctcgtgtgtgtgtgtgc 4233  
QY 2859 agacggttctacaataaatttgttattcactccatcccaagaatlaaaagctgtacagt 2918  
Db 4234 tgatttgcctattcctcgtgcctattgtgtcgtcgtgtgtgtgtgtgtgtgtgtgtgtgc 4293  
QY 2919 ttactctgtacaacttgacggtgtgtgagagataaagtgtaacacaactctctaatacat 2978  
Db 4294 tgattcgttgtctatgc 4353  
QY 2979 tactcgttcaagactgttatctgcgaatcccaacgltatcttcaatcagcattgtgtgacg 3038  
Db 4354 tggtttgtgtgttactcgttctcgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgtgc 4413  
QY 3039 tgcagttaacgttgaccggttctaaacaattacaatt 3075  
Db 4414 tgcgtcgtcgtgatgtgttactgttactatgtcatt 4450

RESULT 7  
PCT-US99-26796-232  
; Sequence 232, Application PC/TUS9926796  
; GENERAL INFORMATION:  
; APPLICANT: United States Government as Represented by the  
; APPLICANT: Secretary of the Navy  
; TITLE OF INVENTION: Chromosome 2 Sequence of Human Malaria Parasite  
; TITLE OF INVENTION: Plasmodium Falciparum and Proteins of Said  
; TITLE OF INVENTION: Chromosome Useful in Anti-malarial Vaccines and  
; TITLE OF INVENTION: Diagnostic Reagents  
; FILE REFERENCE:  
; CURRENT APPLICATION NUMBER: PCT/US99/26796  
; CURRENT FILING DATE: 1999-11-05  
; NUMBER OF SEQ ID NOS: 420  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 232  
; LENGTH: 3579  
; TYPE: DNA  
; ORGANISM: Plasmodium falciparum  
PCT-US99-26796-232

Query Match 1.7%; Score 62.6; DB 1; Length 3579;  
Best Local Similarity 43.7%; Pred. No. 0.0022;  
Matches 336; Conservative 0; Mismatches 424; Indels 9; Gaps 1;  
QY 4 gatagaaaaagctgtgaactagcaacagcaagtgctattgcaagcagtgcatattgtgc 63  
Db 1183 gatgatgaagaagatacagatgatgaagaagatacaagtgatgaagaacacacagtgat 1242  
QY 64 gctgcaaatccaaacgcttctgaagcggctacagatgtagcaacagtagtaagccaagca 123

Db	1243	caagaaacaaagaagaaacagaagttagcgcgaaaaaaacagaaaaaagccgaagaagaa	1302
QY	124	aaagcacaglttcaaaaaagcatactatacttaccagccatacagtaacggaactgtgaa	183
Db	1303	ttagaagaagacacaaagaaatcagaaaaagacaaagaagaatcagaaaaaagataaagaa	1362
QY	184	ttcccaaacattaacgtagtataatgtctgaatacacaaagcgaaaaaacgataccgtgat	243
Db	1363	gaatcagaaaaaagataaagaagaatcagaaaaagacaaagaaaaaaactgaagaagttaa	1422
QY	244	gcggtagcattagtgaataaagcaggtltygcgaaaaaagacgcttacttagtgtatta	303
Db	1423	gaaaaaaactgaagacgaaaaaagyaaacygaagtatacabaanaaagbaacagatgttagttaa	1482
QY	304	caaaaagaatatgaaaacttacgttttccaagcaaaaccttaaatctggcgaagctgtgta	363
Db	1483	aaaaaagaaaagygagaatatgtgagagcgaaacagatgtgaagaagacaaagaaaaaagaa	1542
QY	364	gcaacttacatcgatgtgttacaactatgcacacaaaatttagcgyaaatgcgcgaagacta	423
Db	1543	gaagacgcagaaagaaacaaanaagtagaagaaaagaaaaacagaaa-----aagacgaa	1593
QY	424	gagcgtgctgttccaagcaaaagatttagaaaaagcagaacaatactatcacaaaattcct	483
Db	1594	gaagggaacagatttatgaagaagatacacagatgattcagaccaaaagatgaagaaacaaaagta	1653
QY	484	tatgaaatlaaaaactcgcacagtcattttagatcgcgtatatggtaaacaacaactcgtgat	543
Db	1654	gaagaaaagaanaacagaaaagagaacygaagaagaaactgaagaaagacgaaaaagaacagaa	1713
QY	544	ttacttcgctctacatttaaaagcaaaaagcacaagaacttcgcgcagcttaattatgat	603
Db	1714	gtagaaaaaaagaaaaacagaaaaaagacgaaagagggagacagattatgaagaagatacacgat	1773
QY	604	attaccgttgcattgaagaagcgcgcgaagtacaaagacgcgtgtgaaagcagcgaattgac	663
Db	1774	gattcagacaaagaatgttagaaaacagaaagttagaagaacaacagacgcagaaagacaaagaagaa	1833
QY	664	aaagctaaagctgctgtgtgatccaatccaatccaatccaatccaatccaatccaatccaatcca	723
Db	1834	aacgaaagagggaaacagatgtgaagaagacaaagttagaagaaacacagaccctagaacgaccaa	1893
QY	724	aaaactgaactaacagaaagtagcgaaaaaaagcattagatgcagatgaag	772
Db	1894	gaagaaagacggagaaagaagataaagaaagacgacaaagaaaaaagacaaag	1942

```

RESULT      8
US-09-457-2159
; Sequence 2159, Application US/09457659
; GENERAL INFORMATION:
; APPLICANT: Gearing, David P.
; APPLICANT: Comrack, Christopher
; APPLICANT: Holtzman, Douglas A.
; TITLE OF INVENTION: NUCLEIC ACID MOLECULES DERIVED FROM
; TITLE OF INVENTION: HUMAN NATURAL KILLER CELL AND HUMAN BRONCHIAL EPITHELIUM
; TITLE OF INVENTION: LIBRARIES
; FILE REFERENCE: 1600.1071001
; CURRENT APPLICATION NUMBER: US/09/457, 659
; CURRENT FILING DATE: 1999-12-09
; EARLIER APPLICATION NUMBER: 60/111, 677
; EARLIER FILING DATE: 1998-12-10
; EARLIER APPLICATION NUMBER: 60/113, 891
; EARLIER FILING DATE: 1998-12-28
; NUMBER OF SEQ ID NOS: 2259
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 2159
; LENGTH: 957
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
;

```

```

; LOCATION: (1)..(957)
; OTHER INFORMATION: n - A,T,C or G
US-09-457-659-2159

```

Query Match	1.6%	Score 58.8;	DB 18;	Length 957;
Best Local Similarity	32.9%;	Pred. No. 0.0095;		
Matches 277;	Conservative 0;	Mismatches 562;	Indels 3;	Gaps 1;

QY	105	aacagtagtaagcccaagc	aaaaagcacagcttcaaaaaagc	atactacttaccagccatc	164			
Db	14	aaaaaanaanaaaaaaaa	aaaaaanaaaaaaanaaaaaa	aaaaaanaaaaaa	73			
QY	165	agtaacggaactggtgaat	cccccaacataacg	atgatatgctgatalacacaaagc	224			
Db	74	annannannnnngaaact	cggaacncaataaanat	anaaaaaaanaaaan	133			
QY	225	gaaaaaacgataccg	tgatgcygtagcattag	tgaataagcaggtg	gcgcaaaaaaga	284		
Db	134	aaanaaaaaaanaaaaaa	ananaaaaaaataaaaaa	annanaaaaaaanaaaan	193			
QY	285	cgcttacttagctgatt	tacaaaaagatatga	aacttacgcttcaagc	aaacctta	344		
Db	194	aaanaannngnaaana	nanaanaanaanaannna	aaaaanaanaagaaana	anaanaaan	253		
QY	345	atctgcgaagctcg	tgtagcaactlatac	gtcttacaactatgcaca--	aaatt	401		
Db	254	aaaaaanaanaanaana	aaanaanaaaaaana	annaCaazaaatna	anaanaanaa	313		
QY	402	agacgaaatcgccaa	agagctagagctgct	gttcaagcaaaagatt	tagaaaaagcaga	461		
Db	314	aaaaaanaanaaaaaa	anaanaaaaaanaaga	anannanaaaaaa	anaanaanaa	373		
QY	462	acaatactatcacaaa	atccctatgaaatt	aaaactgcgcagctc	atttagatcgcgt	521		
Db	374	aaaaaanaanaaaaaa	anaanaaaaaaanaaaa	anaaaaanaaaan	anlccaan	433		
QY	522	atatgtaaaacaact	cgctgtgatttact	cgctctacatttaag	caaaagcacagaact	581		
Db	434	nanaaaaaaanaaaaaa	agaanannnanaana	anaanaanganaaaaa	anaanaaaaaa	493		
QY	582	tcgcgcagacttaatt	tatgatattaccg	gttgcaatgaaagcgcg	gaagtacagaagc	641		
Db	494	aaaanannnaaana	anganaaaaaanana	nantanaaaanaaaaa	annaaaaaaa	553		
QY	642	tgtgaaagcgagca	atttagacaaagct	gaagctgctgttgat	ccaatcaatcaatt	701		
Db	554	nnaaaaanaanaana	anaaaataaagpna	aagaanaaatca	ccnnaaaaaaaa	613		
QY	702	accaaaaagtaacga	tgtcttcaaaactga	actaacagaagtag	cgaaaaaagcattaga	761		
Db	614	naannnaaaaaana	ananaaaaaaana	naananantana	anaaaaaacaanna	673		
QY	762	tgcagatgaagctgc	gtctactccaaggt	tgaaagtgtaag	tgcygaltacaactcaaa	821		
Db	674	nanaaaanaanaana	aaaanlncanaann	ngnaaanaganaaaa	aaaaaaaaaana	733		
QY	822	caaaagctgtgaa	tltaacagcagtlac	agcagtgaaacga	actaaaaatlacaactl	cagc	881	
Db	734	naanaaaaaagaa	agagaaaaaaca	aanatltaaca	ecanannnaaaaaa	anaaaanacaa	793	
QY	882	tgctgcaaatgaa	agatacagtaa	agcgtlaa	tactgtlacgtat	ctaataagtygacg	gtaa	941
Db	794	annaanaaaang	aaaaatnnnaana	anaanaananann	naaanaancgaa	anaanaagaaanaa	853	
QY	942	ca	943					
Db	854	aa	855					

RESULT 9  
US-09-652-127-5964  
; Sequence 5964, Application US/09652127

```

; GENERAL INFORMATION:
; APPLICANT: Shyjan, Andrew W.
; TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
; TITLE OF INVENTION: THEREFOR
; FILE REFERENCE: 1600.1183-001
; CURRENT APPLICATION NUMBER: US/09/652,127
; CURRENT FILING DATE: 2000-08-30
; PRIOR APPLICATION NUMBER: 60/151,134
; PRIOR FILING DATE: 1999-08-30
; NUMBER OF SEQ ID NOS: 10475
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5964
; LENGTH: 957
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (1)..(957)
; OTHER INFORMATION: n = A,T,C or G
US-09-652-127-5964
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Query Match 1.6%; Score 58.8; DB 25; Length 957;  
Best Local Similarity 32.9%; Pred. No. 0.0095;  
Matches 277; Conservative 0; Mismatches 562; Indels 3; Gaps 1;

```
QY 105 aacagttagtaagccaagcaaaagcacaggttcaaaaaaagcattactatactacagccatc 164
    ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 14 aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa 73

QY 165 agtaacggaactggtgaattcccaaacatgaagatgtatatgtgtaatacaacaagc 224
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 74 annannannnnngaaaaactcgaaacncaataaanaatananaaaaaaanaaaaaa 133

QY 225 gaaaaaacgataccggtgtagtgcgttagcattagtgataaagcagtgcgcgaaaaaaga 284
    ||| ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 134 aaaaaaaaaaaaaaannaaaaaanananaaaaaaataaaaaannananaaaaaaanaa 193

QY 285 cgcttactagctgattacaaaagaatatgaacttacgttttcaagcaaacctaa 344
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 194 aanaannghaanaanaanaanaanaanaanaanaanaanaanaanaanaanaanaa 253

QY 345 atctgcggaagctcgtgtagcaacttacatcgatgcttacaactatgcaca--aaatt 401
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 254 aaaaaaaaaannananaaaaaannannannannannannannannannannannann 313

QY 402 agacggaatgcgcgaagcctagagcgtgctgttcaagcaaaaagattagaaaaagcaga 461
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 314 aaaaaaannnnnaaaaaaanaanaaaaaaanaagaannannanaaaaaaanaaanaa 373

QY 462 acaatactatcacaaaattccttatgaaattaaactcgcacagtcatttagatcgct 521
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 374 aanaaaaaannnaaaaaaanaanaaaaaaanaaaaaaanaaanaantcaaan 433

QY 522 atatgtaaaacaactcgtgatttactcgtcttacaatttaagcaaaaagcacagaact 581
    |||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 434 nanaaaaaaaaagaaganannannannannannannannannannannannannann 493

QY 582 tcgcgacagcttaatttatgatattacogttgcaatgaaagcgcggaagtacagcgc 641
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 494 aaaaannnnnaannanganaaaaaaannannannannannannannannannannann 553

QY 642 tgtgaaagcaggaatttagacaaagctaaagctgctgtgtgattcaaatcaatactt 701
    ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 554 nnaaaaaaanaanaanaaaaaataaaggnnaaagaanaaataacacnnaaaaaaaa 613

QY 702 accaaaagttaacagatgcttcaaaactgaactaacagaagtagcgaaaaaagcattaga 761
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 614 naannnaaaaaaanaanaanaaaaaaanaanaanaantanaanaaaaaaacaannaa 673

QY 762 tgcagatgaagctgcttactccaaaagttgaaagtgtaagtggaattaacactcaaaa 821
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 674 nanaaaaaaanaanaaaaaaantncanahnngnaaanagananaaaaaaanaaaaaa 733
```

```
QY 822 caaagctgtgaattaacagcagtlaccagtgtaacggaacactaaattacactttcagc 881
    ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 734 naaaaaaaaaagagagaaaaaanaaaacaaanattacaacananmaaaaaaanaacaa 793

QY 882 tgcgtcaatgaagatacagtaaacgtaatactgtacgtatctataaagtygacgltaa 941
    ||| ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 794 annaanaaangaaatnnnaanaanaanaannannnnnaanaancgaaganaagaaaaaa 853

QY 942 ca 943
    |
Db 854 aa 855
```

```
RESULT 10
PCT-US98-12764-33
; Sequence 33, Application PC/TUS9812764
; GENERAL INFORMATION:
; APPLICANT: Gil Choi et. al.
; TITLE OF INVENTION: Borrelia burgdorferi Polynucleotides and Sequences
; NUMBER OF SEQUENCES: 155
; CORRESPONDENCE ADDRESSES:
; ADDRESSEE: Human Genome Sciences, Inc.
; STREET: 9410 Key West Avenue
; CITY: Rockville
; STATE: Maryland
; COUNTRY: USA
; ZIP: 20850
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
; COMPUTER: HP Vectra 486/33
; OPERATING SYSTEM: MSDOS version 6.2
; SOFTWARE: ASCII Text
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US98/12764
; FILING DATE: Herewith
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Brookes, A. Anders
; REGISTRATION NUMBER: 36,373
; REFERENCE/DOCKET NUMBER: PB370PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (301) 309-8512
; TELEFAX: (301) 309-8512
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3653 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: Linear
PCT-US98-12764-33
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Query Match 1.6%; Score 57.8; DB 1; Length 3653;  
Best Local Similarity 49.8%; Pred. No. 0.028;  
Matches 146; Conservative 0; Mismatches 147; Indels 0; Gaps 0;

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QY 615 aatgaagcgcggaagtagtaagaagcgtgtaaaagcaggaatttagcaaaagctaaagc 674
    | |||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 1385 AGTGAATAAAGTAGAAGATTCGGAAGCTTAAGTTGACGGAAAAAGAAACAAAGAGAA 1444

QY 675 tgcgttgatcaaatcaatcaatactaccaaaagtaacagatgcttcaaaaactgaact 734
    | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 1445 TACAGAGAACGAACAACAAGAAATTAGCTTAACAAGAGAGAGAGAGAGAGAGAGAA 1504

QY 735 aacgaagtagcgaanaaagcattagatgcagatgaagctgcgttactccaagttga 794
    | |||| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 1505 AGCAGAACAGAAAAACAAAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1564

QY 795 aagtgtaagtcgatttaacactcaaacaaagctgttgtaattaacagcagtlaccagtgaa 854
```







Db 6981 TGTTGCTGCTGCTTTTGTGTGTACTGCTGCTGTGTGCACGATGCTTCTACTGT 6922  
QY 3639 agatgcagcaggtaatgttcagatactatt 3669  
Db 6921 TGCTATTGCAGTTCGCTGTATTAATTACTGTT 6891

RESULT 12  
US-60-233-468-1976/c  
; Sequence 1976, Application US/60233468  
; GENERAL INFORMATION:  
; APPLICANT: Ring, Huijun Z.  
; APPLICANT: Malsen, Gareth  
; APPLICANT: Townley, David  
; APPLICANT: Morris, Macdonald  
; APPLICANT: Valdes, Ana  
; TITLE OF INVENTION: Single Nucleotide Polymorphisms Associated with ADME Genes  
; FILE REFERENCE: GX-0013-2 P  
; CURRENT APPLICATION NUMBER: US/60/233,468  
; CURRENT FILING DATE: 2000-09-18  
; NUMBER OF SEQ ID NOS: 2488  
; SOFTWARE: PERL Program  
; SEQ ID NO 1976  
; LENGTH: 186935  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; FEATURE:  
; NAME/KEY: misc\_feature  
; OTHER INFORMATION: GB:AC022322\_3  
US-60-233-468-1976

Query Match 1.6%; Score 57.6; DB 55; Length 186935;  
Best local Similarity 40.4%; Pred. No. 0.16;  
Matches 691; Conservative 0; Mismatches 1015; Indels 5; Gaps 2;

QY 1959 tgcataaccgttcggtagcacaatacacatacgcgtcaagttgctgtgtaaaagcggg 2018  
Db 8596 TGCTGTTGCTGATCTGTTGCTATCGTTCCTTTGTTATTGTTGCTGTTGCTGCTGC 8537  
QY 2019 tgcnaactatcgtcctctacagcaagtgacatccatccagctagtggtgaagcggttac 2078  
Db 8536 TGCTACTGTTGTTGTTGCTGCTGCTGCTCTTAATTGTTGCTGCTGCTGCTGTTTAC 8477  
QY 2079 tggtaagaatggaacatacacaagtgaagttgctgtcaaccaattagaacgtaaccaagg 2138  
Db 8476 TGCTGCTATTGTTGCTCTTGTGTTGCTGATGCTGCTACTNGTTGCTAATGCTGTTGCTG 8417  
QY 2139 gtacaattagtagtggttcggtgaagtgcaacagctcctgtttaaagatgctgcaaatgc 2198  
Db 8416 CTACTA--TTACTGTTGCTATTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGTTGT 8359  
QY 2199 aaatacttagcaactaactatatactatactttaacaactgaagtgcaagcagtaacagc 2258  
Db 8358 TGCTACTATGTAATTATTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 8299  
QY 2259 accaacygttacaacaaagtattcaaaagtgatctttaaagaagcgtgagcagttactac 2318  
Db 8298 TACTGCTGCTGTTGCTGTTGTTAATTGATGCTATGCTGTTGCTGCTGCTGCTGCTGCTGCTG 8239  
QY 2319 acttaagaagttgatgcaggtcaaaaattcaactatcccaatttagcgaaagaalttaaaac 2378  
Db 8238 TATTGCTGTTGCTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 8179  
QY 2379 ttctagtgttctttagtggtggtgcaaaagtaactgtcgagaatttaacaacaacagcagtg 2438  
Db 8178 TGCTGCTGCTGCTACTGTTGCTGTT---GTTGCTGCTCTTATTGTTGCTGCTGCTGCTGCTG 8122  
QY 2439 ggtagatgctgtgtaactggaacaactgtaacagttgctcctaagacagatgcaaatggttaa 2498  
Db 8121 TGTGTTGCTGCTGCTGCTGTTGCTGTTTACTGCTGCTATGTTGCTGTTGCTGCTGCTGCTGCTG 8062  
QY 2499 agtaacagctgctgtgtgtatataactggtcttgacaataacgacaagaatgacgaatt 2558

Db 8061 TGTTGCTGTTGCTGATAGTCTGTTGCTATCGTTGCTTTGTTATTGTTGCTGTTGCTGCTGC 8002  
QY 2559 gcgtcgtgtagtagaagtccttactagatggaattgctgatgtagctgtgtaatgtaac 2618  
Db 8001 TGCTGCTACTGTTGTTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7942  
QY 2619 taaggaanaagatatatttaattcgtttacaacagctgagacacactgtagcttctgtgaa 2678  
Db 7941 TGCTGATGCTGCTACTGTTGCTATTTGCTGTTGCTGCTACTATTACTGTTGCTATTGCTGC 7882  
QY 2679 agctgctgtgacaagaatgltcaaaagcttcgtcgtgcaattcccaacaagcactgcaat 2738  
Db 7881 TACTATTGCTGCTGCTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7822  
QY 2739 tgatacaactaagaactatagttgaattcaatgaactgaatttagcggaagltaaacc 2798  
Db 7821 TGCTGCTGCTACTGTTATTACTGCGAATTTCTGTTGCTACTGCTGCTGCTGCTGCTGCTG 7762  
QY 2799 tgaagaatcgttgttaaaagatgcagcaggtgaatgcgtgtagctgtgactgtgaacagcatt 2858  
Db 7761 GGCTATTGTTGCTGCTGTTGTTAATTGTGATACATATGCTGTTGCTGATGCTGCTGTTGCTAT 7702  
QY 2859 agacggttctacaataaatttgtattcactccatctcaagaattaaagcgtgtacagt 2918  
Db 7701 TGCTGTTGCTGCTACTGTTGCTATTTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7642  
QY 2919 ttactctgtaacaattgacggtgtgtgagagataaagtagttaacacaactctctaatacat 2978  
Db 7641 TGCTACTGATGCTGTGCTGCTGCTATATTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7582  
QY 2979 tactcgttcaagactgtatctgcgaatccaagttatcttcaatcagcaattgctgacgg 3038  
Db 7581 TATTGTTGCTGTTATTGTTGCTGCTGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTAT 7522  
QY 3039 tgcagttacggttgaccggttctaanaacaattgaattgaattcagcgattcagttccaac 3098  
Db 7521 TACTGTTGCTATTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTAT 7462  
QY 3099 cccaacaatcactttaagaagcgtgacggaacttcaattlactaattacacttagtaaa 3158  
Db 7461 GGTAAATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7402  
QY 3159 tgaataataatgaaataaacaatacaaaatttgtatccacaaggtgtaacacttgacga 3218  
Db 7401 TGCTGCTGCTGCTGTTATTGCTGCGACTTCTGTTGCTGCTACTGCTGATTTGCTATTTC 7342  
QY 3219 gttactcaatlatgagttagcagtttcaaaagatttcaaaactggtactgatatltgtag 3278  
Db 7341 TGTGGCTATTGTTGCTGCTGCTGTTGTTGCTCTTAATTGTGATGGTGTGATTTCTGTTGCTAT 7282  
QY 3279 caaagttacatlcacacaggttctgtgtcactgaacgaagtaaaacctgcttagtagg 3338  
Db 7281 TGTGCTGCTATTGCTAAAAATTGTGCTGCTGCTGTTGCTATTGTTGTTGTTGTTGTTGTTAC 7222  
QY 3339 cgttggtlcatggaaltggaacaagctatactcaagatgctgcagcaacaacagcacttcggtc 3398  
Db 7221 TGTTCCTGTTGCTTTGTTATTGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 7162  
QY 3399 tgaactgacttcgttgcgagcaggttgcctccaattctcagaaggtatcgattaac 3458  
Db 7161 TGTTACTGTTACTATTGCTATTTACTGATACATATTGTTGCTGCTGCTGCTGCTGCTGCTG 7102  
QY 3459 gaatgcactgtgacagtgataacaatatlactgataaanaactgttgaagttatttcaaa 3518  
Db 7101 TACTGTTGCTATTGCTGTTACTACTAGAGATCCTATTGTTGCTATTGCTGCTGCTGCTGA 7042  
QY 3519 agagagtgtagagcagaccatgatatgcagtgctactaagagagacattagtaattaacac 3578  
Db 7041 TGGTATTACTGTTGCCATATCTGTTGCTGCTACTGTTACTGTTGCTGTTGCTATTACTAT 6982  
QY 3579 agttactcctttagtacttgataacagcaagacttataagattgttgaagtgtagttaa 3638

Db 6981 TGTGCTGCTGTTGCTTTTGTGTGTACTGCTGCTGTGTGTCACCTGATGCTTCTACTGT 6922  
QY 3639 agatgcagcaggtaatgttcagatactatt 3669  
Db 6921 TGCTATTGCAGTTGCTGCTGTAATTACTGTT 6891

RESULT 13

US-09-407-679-1  
: Sequence 1, Application US/09407679  
: GENERAL INFORMATION:  
: APPLICANT: Tomasz, Alexander  
: APPLICANT: Delencastre, Herminia  
: TITLE OF INVENTION: AUXILIARY GENES AND PROTEINS OF METHICILLIN RESISTANT  
: TITLE OF INVENTION: BACTERIA AND ANTAGONISTS THEREOF  
: FILE REFERENCE: 600-1-139DIV  
: CURRENT APPLICATION NUMBER: US/09/407,679  
: EARLIER FILING DATE: 1999-09-28  
: EARLIER APPLICATION NUMBER: 08/678,614  
: NUMBER OF SEQ ID NOS: 1  
: SOFTWARE: Patentln Ver. 2.0  
: SEQ ID NO 1  
: LENGTH: 4248  
: TYPE: DNA  
: ORGANISM: Staphylococcus aureus  
: FEATURE:  
: NAME/KEY: misc\_feature  
: LOCATION: (154)..(1410)  
: OTHER INFORMATION: Open Reading Frame  
: FEATURE:  
: NAME/KEY: misc\_feature  
: LOCATION: (1497)..(3500)  
: OTHER INFORMATION: Open Reading Frame  
US-09-407-679-1

Query Match 1.5%; Score 56.8; DB 18; Length 4248;  
Best Local Similarity 41.6%; Pred. No. 0.051;  
Matches 697; Conservative 0; Mismatches 942; Indels 35; Gaps 4;

QY 52 agtgcattgtcgctgcgaatccaacgcgttcgtgaagcgcgtacagatgtgcaacagta 111  
Db 2544 aatgcagctaaagtcttctgtgtttaagcaatttgaaagcgaacgactgcacaagattta 2603  
QY 112 gtaagccaagcaaaaagcacagttccaanaaagcatatactatacttacagcatagtaagc 171  
Db 2604 gaaagagttaaaaaacgaaagaatctcaanaaattgaaaaataattactgaacttaacgcaaca 2663  
QY 172 gaaactggtgaattcccaaacatlaacgagtatatgtcgaatatacaacaagaagcgaaaaa 231  
Db 2664 aaaatgtagtcct-----ataatgaagttaaacaagctgcaacagctagaaaa 2711  
QY 232 cgataccgtgatgcggtagcatattagtgataaagcaggtgycgcgaaaaaagacgcttac 291  
Db 2712 gctcaaaaatgctacagtlccaatgcaacaaatgaagaagtagcagaagctgtagcagca 2771  
QY 292 ttagctgtattacaanaaagaatatgaacttaagtttccaagcaaaccttaactctgac 351  
Db 2772 gtagatgcagctcaaaaagcaagtttacatgacatccaagttgtttaatccaacaacagaa 2831  
QY 352 gaagctcggtagcaacttacatcgatgcttacaactatgcaacaanaattagacgaatg 411  
Db 2832 gttgctgtatacaaaaatcaaaaagattatagataaaaatcaatgcaattccaacaacagaaa 2891  
QY 412 cgcgaagagctagaggtcgtgtlccaagcaaaaagatttagaanaagcagaacaatactat 471  
Db 2892 gttaaacctgcagctgtatacgaagtagaaaacgcataataatcacagttaaacaagaat 2951  
QY 472 caaaaaatccctatgaataataaactgcacagtcattttagatcgcgtatataggttaa 531  
Db 2952 caaaatagcaatgtctcaactacagaagaaaaacaagctgcatacatacagaattagatact 3011

QY 532 acaactcgtgatttacttcgctctacaatttaagaacaaagcacaagaactcgcgcagc 591  
Db 3012 aaaaagcaagaagcaagaacaatcttgatgtcgtcaaatatacaaacagtgatgttaacaaca 3071  
QY 592 ttaattatgatatataccgtgtgcaatgaagcgcgcgaagtagacaagcgtgtgaagca 651  
Db 3072 gctaaagacaataglatgtctgcaatttaacaggttcaagctgcaccaactaagaatcg 3131  
QY 652 ggcatttagacaagaactaaagctgctgtgatcaaatcaatcaacttaccaaaagta 711  
Db 3132 g---atgcaaaagcgaatcgcctcaaaaagcaagtgaaagcgttaaaaacgaattgaagca 3188  
QY 712 acagatgcttcaaaaactgaactacagaagtagcgaaaaaagcattagatgcagatgaa 771  
Db 3189 atgaatgattcgactactgaagaacacaacagcgcgaagaagacaagaagtgatcaagcagta 3248  
QY 772 gctgcgcttactccaaaagttgaagtgtaagtgcgatttaacactcaaaacaagctgtt 831  
Db 3249 gttactgcacaacgctgatataagataaagctgcagcaacaatggtgataatgcacaaa 3308  
QY 832 gaattacagcagttaccagtgaaacggaacactaaaattacaactt-----cagctgctg 886  
Db 3309 ctacaatatgaagctacaatcgcagccattacacctgattgcaaatgtttaaaccagcagcaa 3368  
QY 887 caaatgaagatagcaagtaaacgylaaataatcgtatctataaagtgagcgytaacattc 946  
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QY 947 cattgcccttaatacgcgcagatgttctttatctacagacggaanaactatacactgtg 1006  
Db 3429 caacaactgaagaaaagcagctgtcctaaacaagaattccaactgaaaaaacacacagctg 3488  
QY 1007 atgcttcaactccattcgaataataatcaggaagtataaagtagtattgaagtttaaag 1066  
Db 3489 atgccgcaatagatgcagcacatatacaaatgcygaagltgaaagcgycttaaaaaagcagcaa 3548  
QY 1067 acaaaaatgycaaaagaatttaagaagaatgcatltaacttcaagctcgcgaatgatgctg 1126  
Db 3549 ttgctaanaattgaaagcgtatcagccagcaacaacaactaaagaatattgcgaagaagcaa 3608  
QY 1127 tagttactcaagtglttgaactaatgtaacaa-----acaacaactctg 1171  
Db 3609 ttgctacgaagaagcgaatgaaacgylaaacagcaalcgctcaaacgcaagacattactgctg 3668  
QY 1172 taaactagcagcaggttacttgcacactgcagcatatactttaacagtagtattgataagt 1231  
Db 3669 aagaatgtcagcgcgttaattgcgcagctagataatgtctgtgacacaaagcaaatagcaaca 3728  
QY 1232 tgttagcacctgaaactgtlaaacagctcgaacglttactattacagatgttgaacgtgaa 1291  
Db 3729 ttgaagctgtctaatagtccaatattgtagccaagcgaanaacgcgaaggttgaanaatagta 3788  
QY 1292 aacgcattccagtaatttgcatctactctcgtgttctacaattactattacgtttaaagaag 1351  
Db 3789 ttgatcaagtaaacaccaacaagtttaataaaaaagcaactgcacgyltaatgaaatcacagcaa 3848  
QY 1352 cgttagtaactggtlaaacaaatataaactgtcatcaataatgtttaaaaacattactggtt 1411  
Db 3849 tttaataatacaaaattgcaagagattcaagctaacgcagatgccaacagatgaaagaaaaac 3908  
QY 1412 acaatgcagaagcttacgagttagtttcaactgcacaacgcgacacccaactgttgtcta 1471  
Db 3909 aagcagctgattgtgaagcaaatatcigaaatgtgtaagcaaatcaagcatttcagcag 3968  
QY 1472 ccgctcctaactacttaggtgtgtacaactttatctactggttctcttacaacaatgttt 1531  
Db 3969 caactactaagcacaagaagttgatgaagcttaaaagcaaatgccaagaagcagcattaatgcgg 4028  
QY 1532 ggggtlaaattggtcgtgtgtgtgaatgaagcgtgaaacttatctcctggtctcaattca 1591  
Db 4029 taacaccaaaagttgtgaagaacaagcggcgttaaaagatgaaattgatcaattacaagcaa 4088  
QY 1592 caacaacglttgctactaagtttagaagaaatctactttagctgataaacttgtlatagtg 1651



